

REMARKS

Claims 1-8, 12-23, 25 and 27-30 are pending in the present application. Claims 4-6, 13, and 15-19 are withdrawn. Claims 1 and 12 are amended. Claims 9-11, 24, and 26 are canceled. Claims 27-30 are new. Applicant reserves the right to pursue original and other claims in this and other applications.

Claims 1, 2, 7, 12, and 20 stand rejected under 35 U.S.C. § 103(a) as unpatentable over U.S. Patent No. 6,172,955 (“Hashimoto”) in view of U.S. Patent No. 6,463,021 (“Nakane”). The rejection is respectfully traversed.

Claim 1 recites a recording method for recording data in a recording area of an information recording medium, comprising, *inter alia*, “determining whether to perform a defect detection process ... based on a predetermined determination criterion pertaining to recording attribute information of the data.” Applicant respectfully submits that the cited combination fails to teach or suggest this element.

Hashimoto teaches a controller that “interrupt[s] the formatting operation when a request is made for recording user data during the formatting operation in the background process and restart[s] the formatting operation after the user data has been recorded.” Hashimoto, Col. 7, ll. 11-15. As the Office acknowledges, Hashimoto “fails to disclose determining whether to perform a defect detection process ... based on a predetermined determination criterion pertaining to recording attribute information of the data.” Office Action of September 2, 2008, at 2.

The Office asserts that Nakane teaches this element of claim 1. To the contrary, as discussed below, every embodiment of Nakane teaches performing the defect detection process. At most, Nakane merely teaches determining whether a detected error qualifies as defective.

Nakane teaches “adapt[ing] defect management to the type of data recorded on an optical disk, or the intended use of the disk.” Nakane, Col. 4, ll. 42-45. The method of managing defects includes “determining a criteria for detecting defects according to the type of data for which defects

are to be detected.” Nakane, Col. 4, ll. 54-56. Nakane teaches that “the defects may be detected when the data is recorded on the disk, or when the data is reproduced for verification of the data having been recorded.” Nakane, Col. 4, ll. 64-66. Yet either way, the defects are still detected. “The result of the defect detection can be used in making a decision as to whether the areas found to be defective should be replaced with non-defective areas.” Nakane, Col. 5, ll. 15-18 (emph. added).

The Office cites various passages of Nakane as teaching “determining whether to perform a defect detection process ... based on a predetermined determination criterion pertaining to recording attribute information of the data,” as recited in claim 1 (emph. added). As described below, in each of these passages, the defect detection process occurs, regardless of the selected criteria.

The Office points to elements 1 and 7 of FIG. 10 of Nakane as teaching this element. Office Action of September 2, 2008, at 2; Advisory Action of January 2, 2008, at 2. The Office asserts that “Nakane discloses that by using the different criteria, defect detection may not have to be performed and recording does not have to be interrupted unless the data is of the type where a stricter criteria is necessary....” Advisory Action of January 2, 2008, at 2. Applicant respectfully submits that this interpretation of Nakane’s FIG. 10 is erroneous.

FIG. 10 of Nakane shows “a procedure followed for setting a defect criteria.” Nakane, Col. 14, ll. 61-62. The defect criteria is “the criteria to be used for detecting defect with regard to the each unit of recording.” Nakane, Col. 7, ll. 42-46. The defect criteria in Nakane includes a tracking error tolerance limit (Rtb or Rta, Nakane, Col. 11, ll. 2-14), a number of header ID’s read incorrectly (Nakane, Col. 12, ll. 1-17), or a number of rows or bits having data errors (Nakane, Col. 12, ll. 48-62). While Nakane’s method teaches determining one or more of these criteria as “a criteria for detecting defects according to the type of data for which defects are to be detected,” Nakane, Col. 4, ll. 54-56, in order to analyze and use any of these criteria, the defects must first be detected.

Thus, step 1 of FIG. 10 of Nakane (“determine appropriate criteria”) includes determining “a defect criteria to be used in accordance with the type or contents of the data to be recorded,” – i.e.,

selecting one or more of the above-discussed criteria for determining which of the detected errors require corrective action. *See*, Col. 15, ll. 4-8 (“The designation of the setting sent from the host device to the disk device may be one for specifying selection among a plurality of preset criteria (such as between the criteria A and B), or one for setting an arbitrary criteria.”).

The actions listed in steps 5-6 of FIG. 10 (“record data on optical disk,” “receive result signal,” “transfer result signal,” and “send result signal”) teach “record[ing] the data received together with the command, on the disk, while performing defect management in accordance with the defect criteria which has been set as describe above, and inform[ing] the host device of the result.” Nakane, Col. 15, ll. 9-12 (emph. added). Step 7 of FIG. 10 (“take appropriate action”) merely teaches taking some action due to the result of the detection process, i.e., “the result of the defect detection can be used in making a decision as to whether the areas found to be defective should be replaced with non-defective areas.” Nakane, Col. 5, ll. 15-18 (emph. added).

The Office also points to Column 6, lines 57-65, of Nakane as teaching “determining whether to perform a defect detection process ... based on a predetermined determination criterion pertaining to recording attribute information of the data,” as recited in claim 1. The cited portion of Nakane states:

The plurality of criteria may include at least a first criteria, and a second criteria, the second criteria being less strict than the first criteria, and the selecting means may select the first criteria when the data for which the defects are to be detected is one for which time restriction with regard to data recording or reproduction is less strict, and selects the second criteria when the data for which defects are to be recorded is one for which time restrictions with regard to data recording or reproduction is more strict.

Nakane, Col. 6, ll. 57-65.

As discussed above, one of the more strict “first criteria” and the less strict “second criteria” are selected for detection. *See, e.g.*, Nakane, Col. 13, ll. 30-34 (“When the two different defect criteria A and B [are] available, the strict criteria A is used for recording computer data, while the less strict criteria B is used for recording audio or video data.”). While “verifying reproduction is

often omitted” in the case of audio or video data, Nakane, Col. 13, ll. 18-21, and thus “the criteria set for servo defects and header defects are set at a less strict level,” Nakane, Col. 13, ll. 26-29, the defects – and the amount and size of these defects – are still detected. “Even if some defects occur during recording, as long as occurrence of the defects is of such a degree that the defects can be corrected or concealed later at the time of reproduction, it is preferable to continue recording operation ignoring the defects....” Nakane, Col. 13, ll. 21-25 (emph. added).

Further, Nakane explicitly teaches against any situation where defect detection is not performed. According to Nakane:

One solution to this problem is not to detect secondary defects during the recording of audio or video data. ... The underlying assumption is that once primary defects have been removed at the time of initialization of the disk, any secondary defects that might occur will be minor. If the scale of the secondary defects is greater than predicted, the disturbance of the reproduced picture may be intolerable, and thus this solution fails.

Nakane, Col. 4, ll. 15-25 (emph. added).

Thus, Nakane fails to teach or suggest “determining whether to perform a defect detection process ... based on a predetermined determination criterion pertaining to recording attribute information of the data,” as recited in claim 1. Independent claim 12 recites a similar element, and is allowable over the cited combination of Hashimoto and Nakane for at least the reasons discussed above with regard to claim 1. Claims 2 and 7 depend from claim 1, and claim 20 depends from claim 12. Therefore, these claims are allowable over the cited combination for at least the reasons discussed with regard to their respective independent claims, as well as on their own merits. Accordingly, Applicant respectfully requests that the § 103(a) rejection of claims 1, 2, 7, 12, and 20 be withdrawn, and the claims allowed.

Claim 22 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,631,106 (“Numata”) in view of Hashimoto and further in view of Nakane. This rejection is respectfully traversed.

As the Office acknowledges, “Numata fails to disclose wherein the second verification process is determined to be performed based on whether a predetermined determination criteria has been met.” Office Action of September 2, 2008, at 5. The Office points to Nakane as teaching this element, Office Action of September 2, 2008, at 5, yet, as discussed above, Nakane fails to teach or suggest “determining whether to perform a second verification process on said portion of the recording area based on whether a predetermined determination criterion has been met,” as recited in claim 22. Accordingly, Applicant respectfully requests that the § 103(a) rejection of claim 22 be withdrawn, and the claim allowed.

Claims 23 and 25 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Numata in view of Hashimoto and further in view of U.S. Patent No. 4,730,290 (“Takasago”) and Nakane. The rejection is respectfully traversed.

As the Office acknowledges, “Numata in view of Hashimoto fail to disclose determining whether to perform a verification process on the portion of the recording area based on a criteria, wherein the criteria is whether the size or unit size of the data is less than or equal to a threshold value.” Office Action of September 2, 2008, at 6. The Office points to Nakane as teaching this element, Office Action of September 2, 2008, at 6, yet, as discussed above, Nakane fails to teach or suggest “determining whether to perform a verification process on the portion of the recording area based on whether the size of the data is less than or equal to a threshold value,” as recited in claim 23, or “determining whether to perform a verification process on the designated area based on whether the corresponding recording unit size of the portion of data is less than or equal to a threshold value,” as recited in claim 25. Accordingly, Applicant respectfully requests that the § 103(a) rejection of claims 23 and 25 be withdrawn, and the claims allowed.

Claims 3 and 14 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Hashimoto in view of Nakane, and further in view of Takasago. The rejection is respectfully traversed.

As the Office acknowledges in its discussion of independent claims 1 and 12, from which claims 3 and 14 depend, respectively, Hashimoto “fails to disclose determining whether to perform a defect detection process ... based on a predetermined determination criterion pertaining to recording attribute information of the data.” Office Action of September 2, 2008, at 2. Further, as discussed above with regard to claims 1 and 12, Nakane fails to remedy the deficiencies of Hashimoto. Takasago also fails to remedy the deficiencies of Hashimoto and Nakane, and is not cited as such. Thus, the cited combination fails to teach or suggest all elements of claims 3 and 14, and the claims are allowable over the cited combination for at least the reasons discussed above with regard to claims 1 and 12, as well as on their own merits. Accordingly, Applicant respectfully requests that the § 103(a) rejection of claims 3 and 14 be withdrawn, and the claims allowed.

Claims 8 and 21 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Hashimoto in view of Nakane, and further in view of U.S. Patent No. 7,080,296. The rejection is respectfully traversed.

As the Office acknowledges in its discussion of independent claims 1 and 12, from which claims 8 and 21 depend, respectively, Hashimoto “fails to disclose determining whether to perform a defect detection process ... based on a predetermined determination criterion pertaining to recording attribute information of the data.” Office Action of September 2, 2008, at 2. Further, as discussed above with regard to claims 1 and 12, Nakane fails to remedy the deficiencies of Hashimoto. Hu also fails to remedy the deficiencies of Hashimoto and Nakane, and is not cited as such. Thus, the cited combination fails to teach or suggest all elements of claims 8 and 21, and the claims are allowable over the cited combination for at least the reasons discussed above with regard to claims 1 and 12, as well as on their own merits. Accordingly, Applicant respectfully requests that the § 103(a) rejection of claims 8 and 21 be withdrawn, and the claims allowed.

Response to Non-Final Office Action dated September 2, 2008

In view of the above, Applicant believes the pending application is in condition for allowance.

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Respectfully submitted,

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